

ABSTRACT

In a plasma processing method, a silicon layer of an object to be processed is etched by using a plasma of a processing gas introduced into an airtight processing chamber through a patterned mask. The processing gas contains a gaseous mixture of HBr, O₂ and SiF₄ and, additionally, one or both of SF₆ gas and NF₃ gas; and a gas containing C and F is further added to the processing gas.

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